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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,277	03/26/2007	Lucia Bonadei	BONA3001/JEK	5986
23364	7590	01/22/2010	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314-1176			BECCIA, CHRISTOPHER J	
			ART UNIT	PAPER NUMBER
			3775	
			MAIL DATE	DELIVERY MODE
			01/22/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,277	<b>Applicant(s)</b> BONADEI, LUCIA	
	<b>Examiner</b> CHRISTOPHER BECCIA	<b>Art Unit</b> 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

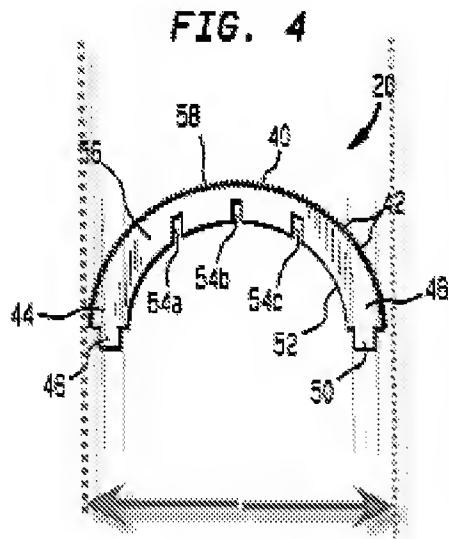
1. Applicant has submitted replacement drawings. Examiner's objection to the drawings has been withdrawn.
2. As to claim 13, Applicant argues that the proposed combination of the Lechot publication and the Frieze patent fails to disclose the specific blade and slot configuration. Examiner respectfully disagrees. *Lechot* discloses a blade assembly comprising at least two flat blades (2 and Fig. 1 below and [0053]) assembled together by means of slots in the blades (plates split down the middle in [0027]), and further wherein at least one of the slots (30) and/or sections of the slot or slots has a different width from that of at least one other slot and/or section of a slot (Slot 30 in disc 1 has different width than slots along middle of plates in [0027]). If four blades were desirable to construct, it would be obvious to configure the slots as necessary to maintain an cohesive blade assembly during use.

It would have been an obvious matter of design choice to construct a blade assembly, such as that of *Lechot*, with multiple slotted blades, as taught by *Frieze*, since applicant has not disclosed that the constructed blade assembly, as in Applicant's Fig. 2 solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a blade assembly taught by *Lechot*, using additional blades, as taught by *Frieze*. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the slotted blades of *Lechot*, since it has been held that mere duplication of the essential working parts of

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a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

3. As to claim 22, Applicant argues that there is no disclosure in either the Lechot publication or the Frieze patent of a lower part of a blade being narrower than a cutting part of the blade. Examiner states that the lower “tabs” such as 46 and 50 in Fig. 4 of *Frieze*, are narrower than the cutting part of the blade 40.



### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. **Claims 12-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. No. 2004/0049199 to *Lechot et al.* in view of U.S. Patent No. 5,897,558 to *Frieze et al.*

As to **Claim 12**, *Lechot* discloses a surgical reamer (Seen in Fig. 1) comprising at least two flat blades (1 and 2, Fig. 1 and [0053]) assembled together by means of slots in the blades (plates split down the middle in [0027]), and further wherein at least one of the slots (30) and/or sections of the slot or slots has a different width from that of at least one other slot and/or section of a slot (Slot 30 in disc 1 has different width than slots along middle of plates in [0027]).

As to **Claim 13**, *Lechot* discloses a surgical reamer wherein the third blade (1) of the four blades has at least one upper third slot (30) running from the top of the third blade and at least one lower third slot (plates split down the middle described in [0027]) running from the lower edge of the third blade, the width of the upper slot being greater than the width of the lower slot (Fig. 1 and [0027]) and the fourth blade (2) of the four blades has at least one fourth slot running from the top of the blade (plates split down the middle described in [0027]), the fourth slot comprising at least one outer section and one inner section (slot running from top of blade in [0027] and 3 in Fig. 1), the width of the outer section being greater than the width of the inner section (Figs. 4 and 5), the width of the lower third slot of the third blade corresponding to the thickness of the fourth blade [0027-0028], the width of the inner section of the fourth slot of the fourth blade corresponding to the thickness of the third blade [0027-0028], and the width of the upper third slot of the third blade and the outer section of the fourth blade being the

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same and such that, once fitted together, the first two blades can be inserted into the upper third slot of the third blade and into the outer section of the fourth blade, the third and fourth blades being themselves fitted together (Figs. 4 and 5).

As to **Claim 14**, *Lechot* discloses a surgical reamer wherein the first slot of a first one of the blades has at least an outer and an inner section, the outer section being wider than the inner section (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 16**, *Lechot* discloses a surgical reamer comprising at least one rigidifying element (15) adapted to encircle and hold together the four blades (Figs. 4 and 5 and [0042-0043]).

As to **Claim 17**, *Lechot* discloses a surgical reamer wherein the rigidifying element comprises a cylindrical bushing (15 and [0042-0043]).

As to **Claim 18**, *Lechot* discloses a surgical reamer wherein the rigidifying element comprises a flat ring with notches (10) into which the blades are inserted (Fig. 7, and [0041-0043]).

As to **Claim 19**, *Lechot* discloses blades for a reamer comprising at least one slot having sections of different widths (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

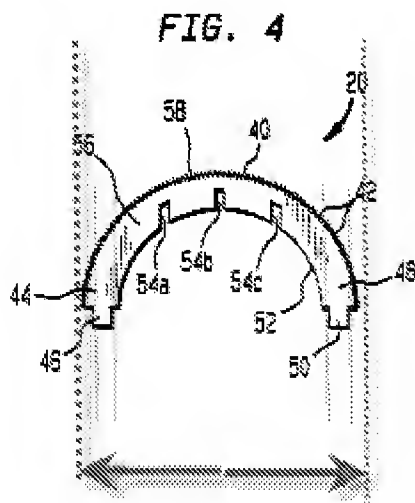
As to **Claim 20**, *Lechot* discloses blades for a reamer wherein the at least one slot comprises an upper slot running from the top of a cutting part of the blade and a lower slot running from the lower edge of the blade, the width of the upper slot being

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different from the width of the lower slot (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 21**, *Lechot* discloses blades for a reamer wherein one of the upper or lower slots comprises at least one outer section and one inner section, the width of the outer section being greater than the width of the inner section (outer slot 30 of blade 1 is wider than slot down the middle described in [0027]).

As to **Claim 22**, *Lechot* discloses blades for a reamer comprising at least one slot wherein the longitudinal axis of symmetry is coincident with the axis of rotation of the reamer, a rounded cutting part (4), and a lower part which is narrower than the cutting part (See Fig. 4 and [0026-0028 and 0041-0043]).



*Lechot* discloses the claimed invention except for each blade having a longitudinal axis of symmetry that is coincident with an axis of rotation of the reamer; wherein the first of the four blades has at least one first slot which runs from the lower edge of the blade, the second of the four blades having at least one second slot running

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from the top of the blade, each of the first and second slots having, at least in one section, a width corresponding to the thickness of the blade which is fitted into the other slot; wherein a second one of the blades has at least one lower slot running from its lower edge, the lower slot being wider than the second slot.

*Frieze* discloses surgical reamer (10 in Fig. 2) wherein the first of the four blades (20) has at least one first slot (54 a, b, c) which runs from the lower edge of the blade (See Fig. 4), the second (28) of the four blades having at least one second slot running from the top of the blade (74 a, b, c), each of the first and second slots having, at least in one section, a width corresponding to the thickness of the blade which is fitted into the other slot (Col. 4, Lines 1-31); wherein a second one of the blades has at least one lower slot running from its lower edge (54 a, b, c), the lower slot being wider than the second slot (Fig. 4 and Col. 4, Lines 1-31) in order to provide multiple blades including slots on the outer cutting edge thereof which engage respectively with one of three slots located on the interior edge of each of the multiple blades of the second set (Col. 2, Lines 1-24).

*Frieze* discloses the claimed invention except for each blade having a longitudinal axis of symmetry that is coincident with an axis of rotation of the reamer. It would have been an obvious matter of design choice to construct a blade assembly, such as that of *Lechot*, with multiple slotted blades, as taught by *Frieze*, since applicant has not disclosed that the constructed blade assembly, as in Applicant's Fig. 2 solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a blade assembly taught by *Lechot*, using additional



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blades, as taught by *Frieze*. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the slotted blades of *Lechot*, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the reamer and blades of *Lechot* with the added blades and slot modifications of *Frieze* in order to provide multiple blades including slots on the outer cutting edge thereof which engage respectively with one of three slots located on the interior edge of each of the multiple blades of the second set.

### ***Conclusion***

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER BECCIA whose telephone number is (571)270-7391. The examiner can normally be reached on M-F 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on 571-272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER BECCIA/  
Examiner, Art Unit 3775

/Thomas C. Barrett/  
Supervisory Patent Examiner, Art  
Unit 3775